SAMSUNG

SAMSUNG ELECTRONICS

DVD VIDEO

DVD PLAYER

DVD/VIDEO-CD/CD

DVD-818K

AH68-00443F

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER(OR BACK).
NO USER-SERVICEABLE PARTS ARE INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates "dangerous voltage" inside the product that presents a risk of electric shock or personal injury.

This symbol indicates important instructions accompanying the product.

CAUTION: DVD PLAYERS USE AN INVISIBLE LASER BEAM WHICH CAN CAUSE HAZARDOUS RADIATION EXPOSURE IF DIRECTED. BE SURE TO OPERATE PLAYER CORRECTLY AS INSTRUCTED.

CAUTIONS

Caution: To prevent electric shock, match wide blade of plug to wide slot, fully insert.
Attention: Pour éviter les chocs électriques, introduíre la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu au fond.

This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances, such as radios and televisions, use shielded cables and connectors for connections.

FCC NOTE (for U.S.A):

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect this equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This class B digital apparatus meets all requirements of the Canadian Interference -- Causing Equipment Regulations.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASER LAITE
KLASS 1 LASER APPARAT

WARNING
To reduce the risk of fire or shock hazard, do not expose this DVD player to rain or moisture.

CAUTION
THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVER AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

Note:

- This unit can be used only where the power supply is AC 120V, 60Hz. It cannot be used elsewhere.
- This DVD player is designed and manufactured to respond to the Region Management Information. If the Region number of a DVD disc does not correspond to the Region number of this DVD player, the DVD player cannot play the disc.
- This device is protected by U.S. patent numbers 4,631,603, 4,577,216 and 4,819,098 and other intellectual property rights. The use of Macrovision's copy protection technology in the device must be authorized by Macrovision and is intended for home and other limited pay-per-view uses only, unless otherwise authorized in writing by Macrovision. Reverse engineering or disassembly is prohibited.

Handling Cautions

- Before connecting other components to this player, be sure to turn them all off.
- Do not move the player while a disc is being played, or the disc may be scratched or broken, and the player's internal parts may be damaged.
- Do not put a flower vase filled with water or any small metal objects on the player.
- Be careful not to put your hand into the disc tray.
- Do not place anything other than the disc in the disc tray.
- Exterior interference such as lightning and static electricity can affect normal operation of this player. If this occurs, turn the player off and on again with the POWER button, or disconnect and then reconnect the AC power cord to the AC power outlet. The player will operate normally.
- Be sure to remove the disc and turn off the player after use.
- Disconnect the AC power cord from the AC outlet when you don't intend to use the player for long periods of time.
- Clean the disc by wiping in a straight line from the inside to the outside of the disc.

Disc Storage

Be careful not to harm the disc because the data on these discs is highly vulnerable to the environment.

- Do not keep under direct sunlight.
- Keep in a cool ventilated area.
- Store vertically.
- Keep in a clean protection jacket.

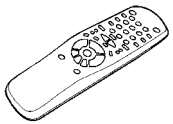
Maintenance of Cabinet

For safety reasons, be sure to disconnect the AC power cord from the AC outlet.

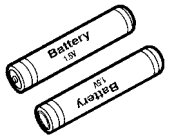
- Do not use benzene, thinner, or other solvents for cleaning.
- Wipe the cabinet with a soft cloth.

Before You Start

Accessories

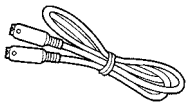


Remote Control



Batteries for Remote Control (AA Size)

Video/Audio Cable



S-Video Cable

User's Manual

Install Batteries in the Remote

1. Open the battery cover on the back of the remote.
2. Insert two AA batteries. Make sure that the polarities (+ and -) are aligned correctly.
3. Replace the battery cover.

If remote doesn't operate properly:

- Check the polarity + - of the batteries (Dry-Cell)
- Check if the batteries are drained.
- Check if remote sensor is blocked by obstacles.
- Check if there is any fluorescent lighting nearby.

- DVDs/VCDs/CD-Rs recorded in a format different from the global DVD player formats adopted by Samsung, may not be played.
- Some discs recorded under different manufacturing quality, may not be played.
- CD-Rs containing MP3 files (with "*.mp3" extension), above 128K bps with filename less than 8 letters, can be played.

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Excellent Sound
Dolby Digital, a technology developed by Dolby Laboratories provides crystal clear sound reproduction.

Screen
Video with MPEG-2 compression technology. Both regular and widescreen(16:9) pictures can be viewed.

Slow Motion
An important scene can be viewed in slow motion.

Programmed Play
You can program tracks to play in desired order.

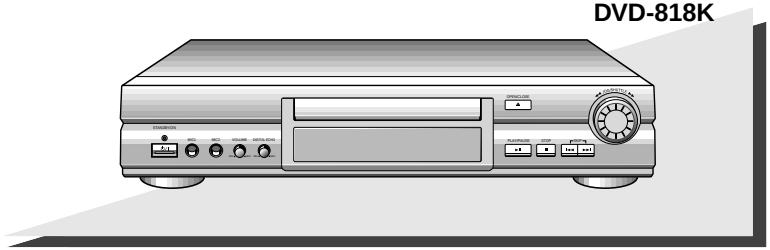
Parental Control
The parental control allows users to set the level necessary to prohibit children from viewing harmful movies such as those with violence, adult subject matter, etc.

Various On-Screen Menu Functions
You can select various languages(Audio/Subtitle) and screen angles while enjoying movies.

Repeat
You can repeat a song or movie simply by pressing the REPEAT button.

General Features

DVD-818K



COPY PROTECTION

- **Many DVD discs are encoded with copy protection. Because of this, you should only connect your DVD player directly to your TV, not to a VCR. Connecting to a VCR results in a distorted picture from copy-protected DVD discs.**
- This product incorporates copyright protection technology that is protected by methods claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Disc Type and Characteristics

This DVD player is capable of playing the following types of discs with the corresponding logos:

Disc Types (Logos)	Recording Types	Disc Size	Max. Playing Time	Characteristics
DVD	Audio + Video	5"	Single-sided 240 min. Double-sided 480 min.	• DVD contains excellent sound and video due to Dolby Digital and MPEG-2 system. • Various screen and audio functions can be easily selected through the on-screen menu.
		3 1/2"	Single-sided 80 min. Double-sided 160 min.	
VIDEO-CD	Audio + Video	5"	74 min.	• Video with CD sound, VHS quality & MPEG-1 compression technology.
		3 1/2"	20 min.	
AUDIO-CD	Audio	5"	74 min.	• An LP is recorded as an analog signal with more distortion. CD is recorded as a Digital Signal with better audio quality, less distortion and less deterioration of audio quality over time.
		3 1/2"	20 min.	

* DO NOT play CD-ROM, CD-I, and DVD-ROM in this player! (CDGs play audio only, not graphics.)

Disc Markings

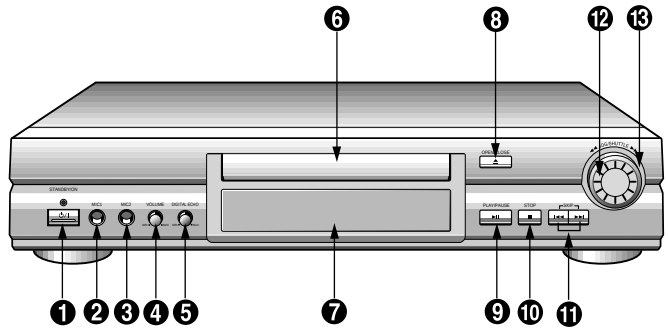
• Playback Region Number	• PAL broadcast system in U.K, France, Germany, etc.	• Dolby Digital disc	• Stereo disc	• Digital Audio disc	• DTS disc

Playback Region Number

Both the DVD player and the discs are coded by region. These regional codes must match in order for the disc to play. If the codes do not match, the disc will not play.

The Region Number for this player is described on the rear panel of the player.

Description-Front Panel



Front Panel Controls

❶ **STANDBY / ON**
- When the unit is first plugged in, the indicator lights. When STANDBY/ON is pressed on again, the light goes out and the player is turned on.

❷ **MIC 1**
- Connect microphone 1 for Karaoke functions.

❸ **MIC 2**
- Connect microphone 2 for Karaoke functions.

❹ **VOLUME**
- Use to adjust microphone volume level.

❺ **DIGITAL ECHO**
- Use to adjust echo delay.

❻ **DISC TRAY**
- Press OPEN/CLOSE to open and close the disc tray.

❼ **DISPLAY**
- Operation indicators are displayed here.

❽ **OPEN/CLOSE**
- Press to open and close the disc tray.

❾ **PLAY/PAUSE**
- Begin or pause disc play.

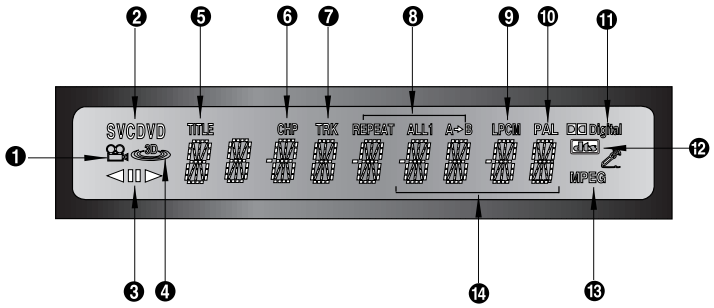
❿ **STOP**
- Stops disc play.

⓫ **SKIP**
- Use to skip a scene or music.

⓬ **JOG DIAL**
- Operates frame by frame playback. In CD mode, performs track search.

⓭ **SHUTTLE DIAL**
- Performs fast or slow motion playback.

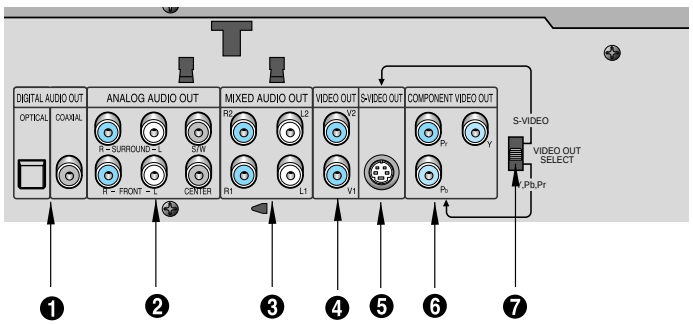
Description-Front Display



Front Panel Display

❶ Angle indicator. You can select multiple angles of a scene recorded by different cameras.
❷ Disc type indicators
❸ Reverse playback / Pause / Forward playback
❹ Lights when 3D surround is turned on.
❺ DVD : Title number
❻ DVD : Chapter number.
❼ Video/Audio CD : Track number
❽ Repeat play mode
❾ Linear PCM audio output
❿ PAL indicator
⓫ Dolby Digital Disc
⓬ DTS (Digital Theater System) output
⓭ MPEG-2 Audio output
⓮ Displays various messages concerning operations such as PLAY, STOP, LOAD, RANDOM, ...
no DISC : No disc loaded.
OPEN : The disc tray is open.
LOAD : Player is loading disc information.

Description-Rear Panel



Rear Panel

❶ DIGITAL AUDIO OUT JACK
- Use either an optical or coaxial digital cable to connect to a compatible Dolby Digital receiver. Use to connect to an A/V Amplifier that contains a Dolby Digital decoder or DTS decoder.

❷ 5.1CH ANALOG AUDIO OUT JACKS
- Connect to an amplifier with 5.1ch analog input jacks.

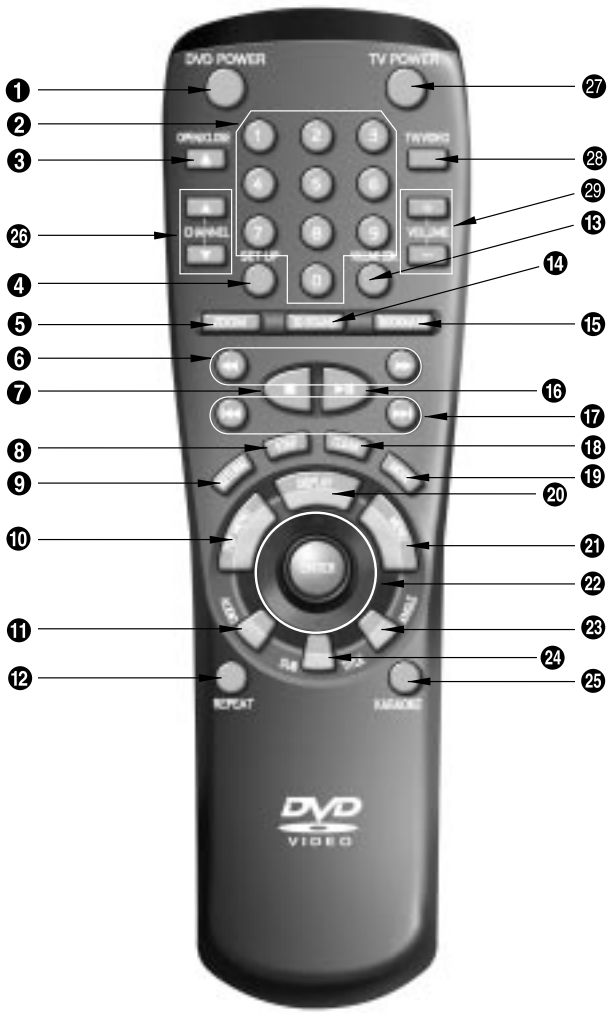
❸ MIXED AUDIO OUT JACKS
- Connect to the Audio input jacks of your television, audio/video receiver, or VCR.

❹ VIDEO OUT JACK
- Use a video cable to connect to the Video input jack on your television.

❺ S-VIDEO OUT JACK
- Use the S-Video cable to connect this jack to the S-Video jack on your television for a higher quality picture. The S-Video must be selected in the VIDEO OUT SELECT.

❻ COMPONENT VIDEO OUT JACKS
- Use these jacks if you have a TV with Component Video in jacks. These jacks provide Pr, Pb and Y video. Along with S-Video, Component Video provides the best picture quality. The Y, Pb, Pr must be selected in the VIDEO OUT SELECT.

❼ VIDEO OUT SELECT SWITCH
- Use the switch to set video out.
- If Y, Pb or Pr is selected, S-Video may not work.
- If S-Video is selected, Y, Pb or Pr may not work.



DVD Function Buttons

❶ **DVD POWER Button**

❷ **NUMBER Buttons**

❸ **OPEN/CLOSE Button**

❹ **SETUP Button**
- Brings up the DVD player's Setup menu.

❺ **ZOOM Button**

❻ **SEARCH Buttons**
- Allows you to search forward/backward through a disc.

❼ **STOP Button**

❽ **STEP Button**
- Advances playback one frame at a time.

❾ **RETURN Button**
- Returns to a previous menu.

❿ **TOP MENU Button**
- Accesses a music or video display directly.

⓫ **AUDIO Button**
- Use this button to access various audio functions on a disc.

⓬ **REPEAT Button**
- Allows you to repeat play a title, chapter, track, or disc.

⓭ **VOLUME CON. Button**
- To control the master volume of the player.

⓮ **3D SOUND Button**

⓯ **BOOKMARK Button**

⓰ **PLAY/PAUSE Button**
- Begin/Pause disc play.

⓱ **SKIP Buttons**
- Use to skip the title, chapter, or track.

⓲ **CLEAR Button**
- Use to remove menus or status displays from the screen.

⓳ **MODE Button**
- Allows you to program a specific order.

⓴ **DISPLAY Button**
- Displays the current disc mode.

㉑ **MENU Button**
- Brings up the Disc menu.

㉒ **ENTER/DIRECTION Button (UP/DOWN or LEFT/RIGHT Button)**
- This button functions as a toggle switch.

㉓ **ANGLE Button**
- Use to access various camera angles on a DVD.

㉔ **SUBTITLE Button**

㉕ **KARAOKE Button**
- Use to begin karaoke functions.

TV Function Buttons

㉖ **CHANNEL UP/DOWN Buttons**

㉗ **TV POWER Button**
- Use to set the remote to control a compatible TV.

㉘ **TV/VIDEO Selection Button**

㉙ **VOLUME UP/DOWN Buttons**

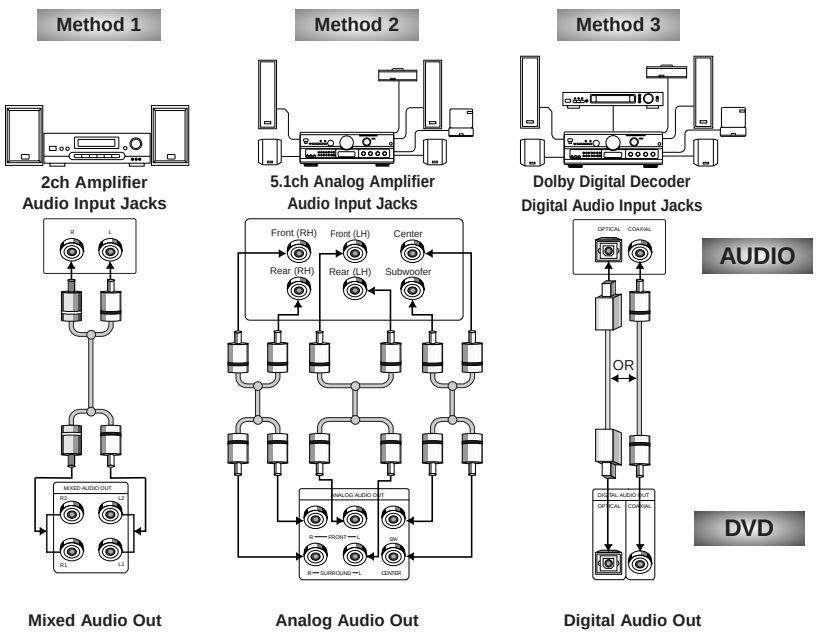
Choosing a Connection

The following show examples of connections commonly used to connect the DVD player with a TV and other components.

Before Connecting the DVD Player

- Always turn off the DVD player, TV, and other components before you connect or disconnect any cables.
- Refer to owner's manual of the additional components you are connecting for more information for those particular components.

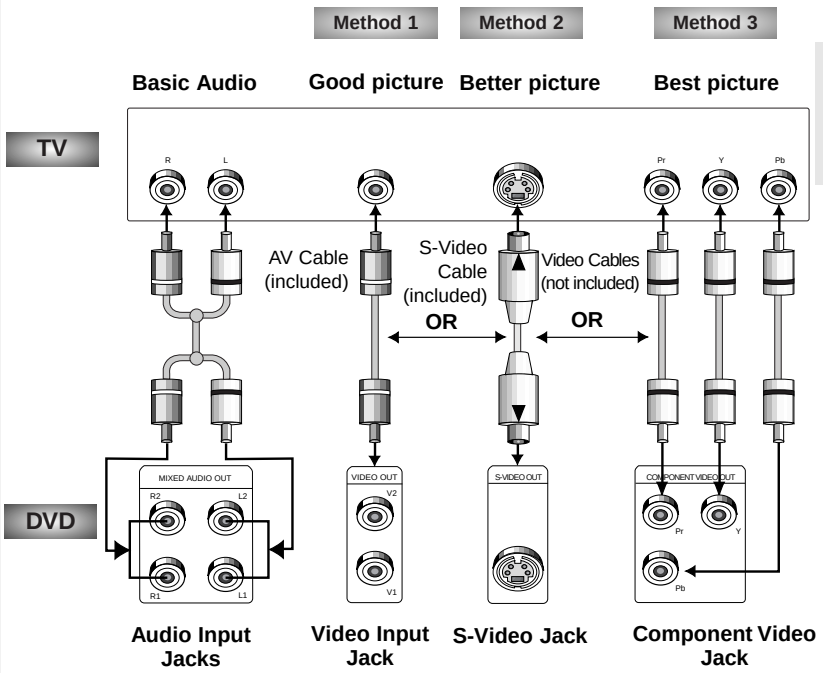
Connection to an Audio System



- **Method 1** DVD Player + 2ch Stereo Amplifier or Dolby Pro Logic Decoder
- **Method 2** DVD Player + Amplifier with 5.1ch Analog Input Jacks
- **Method 3** DVD Player + Amplifier with Dolby Digital Decoder/DTS Decoder

Connection to a TV (For Video)

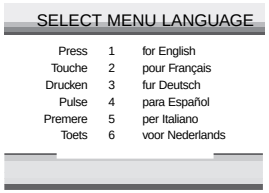
TV (Normal, Widescreen, Projection, etc..)



- **Method 1** DVD Player + TV with Video Input Jack
- **Method 2** DVD Player + TV with S-Video Input Jack
  (If S-Video is selected in the VIDEO OUT SELECT.)
- **Method 3** DVD Player + TV with Component Video Jacks
  (If Y, Pb or Pr is selected in the VIDEO OUT SELECT.)

NOTE

- If Y, Pb or Pr is selected, S-Video may not work.
- If S-Video is selected, Y, Pb or Pr may not work.



Before Playback

- Turn on a TV and press the TV/VIDEO button to select video mode.
- Turn on your Audio System and select AUX, CD or DVD.
- Refer to your AUDIO User's Manual.

After plugging in the player, the first time you press the DVD POWER button, this screen comes up :

If you want to select the language, press a NUMBER button. (This screen will only appear the very first time you plug in the player.)

Playback

1 Press the OPEN/CLOSE button.

The STANDBY indicator light goes out and the tray opens.

2 Place a disc gently into the tray with the disc's label facing up.

3 Press the PLAY/PAUSE button or OPEN/CLOSE button to close the disc tray.

RESUME function

When you stop disc play, the player remembers where you stopped, so when you press PLAY again, it will pick up where you left off (unless the disc is removed, the STOP button is pressed twice or the player is unplugged.).

NOTE

- If the player is left for 5 minutes in pause mode, it will stop.
- The power is automatically turned off after approximately 30 minutes have elapsed in the stop mode (auto power-off feature).
- If the player is left in the stop mode for more than one minute without any user interaction, a screen saver will be activated, and the TV screen will fade in and fade out repeatedly. Press PLAY button to resume normal play.
- This ⊘ icon indicates an invalid button press.

1 Stopping Playback

Press the STOP button during playback.

2 Removing Disc

Press the OPEN/CLOSE button.

3 Pausing Playback

Press the PLAY/PAUSE or STEP button on the remote during playback.
- Screen stops, no sound.
- To resume again, press PLAY/PAUSE button once again.

4 Step Motion Playback (Except CD)

Press the STEP button on the remote or turn JOG dial on the front of the DVD player during playback.
- Each time the button is pressed, a new frame will appear.
- No sound is heard during STEP mode.
- Press PLAY/PAUSE to resume normal playback.

(You can only perform step motion playback in the forward direction.)

5 Slow Motion Playback (Except CD)

Press the FWD or REV SEARCH button on the remote or turn the SHUTTLE dial on the front of the DVD player during PAUSE or STEP mode.
- By pressing the SEARCH button, you can select slow motion playback for 1/2, 1/4 or 1/8 of normal speed.
- No sound is heard during slow mode.
- Press PLAY/PAUSE to resume normal playback.
- When playing a VCD, the reverse slow motion playback will not work.

Using the Search & Skip Functions

During playback, you can search quickly through a chapter or track or use the skip function to jump to the next selection.

Searching through a Chapter or Track

1 Press the FWD or REV SEARCH button on the remote or turn the SHUTTLE dial on the front of the DVD player during PLAY mode.

- Press the REVERSE or FORWARD SEARCH button on the remote and press again to search at a faster speed(2X/4X/8X/16X/32X/normal speed, in order) on the DVD.
- Press the REVERSE or FORWARD SEARCH button on the remote and press again to search at a faster speed(4X/8X/normal speed in order) on VCD and CD.
- To return to normal speed playback, press the PLAY/PAUSE button.

Skipping Tracks

2 During playback, press the NEXT SKIP or BACK SKIP button.

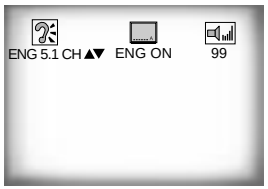
- When playing a DVD, if you press the NEXT SKIP button, it moves to next chapter. If you press the BACK SKIP button, it moves to the beginning of the chapter. One more press makes it move to the beginning of the previous chapter.
- When playing a VCD 2.0 in MENU OFF mode, a VCD 1.1 or a CD, if you press the NEXT SKIP button, it moves to next track. If you press the BACK SKIP button, it moves to the the beginning of the track. One more press makes it move to the beginning of the previous track.
- If a track exceeds 15 minutes when playing a VCD and you press the NEXT SKIP button, it moves forward 5 minutes. If you press the BACK SKIP button, it moves backward 5 minutes.
- When playing a VCD 2.0 in the MENU MODE or Track View function, if you press the NEXT SKIP button, it moves to the next MENU or the next Track View display. If you press the BACK SKIP button, it moves to the previous MENU or the previous Track View display. (See page 22.)

NOTE

- When in search mode (4X/8X/16X/32X) on a DVD or high-speed playback on a VCD, no sound will be heard.
- When 2X SCAN AUDIO is set to ON in the SETUP MENU, no sound will be heard on discs which are recorded with LPCM, DTS or MPEG-2.
- Depending on the disc, audio may not be heard when a disc is in 2X playback mode.

Using the Display Function

When Playing a DVD



1 During playback, press the DISPLAY button on the remote.

- Current title, chapter number and elapsed time will be displayed.
- Use the LEFT/RIGHT button to select a title or a chapter number.
  Use the UP/DOWN button or Number buttons to enter a different title or chapter number, then press the ENTER button.
- To enter the time from which you want to start, use the LEFT/RIGHT button to select, then use the Number buttons to enter the time. Then press the ENTER button.

2 Press the DISPLAY button on the remote twice.

- Current audio, subtitle and volume control will appear.
- To make the screen disappear, press the DISPLAY button again.

When Playing a CD/VCD

1 During playback, press the DISPLAY button on the remote.

- Current track number, elapsed time and volume control will be displayed.
- Use the LEFT/RIGHT button to select a track. Use the UP/DOWN button or Number buttons to enter a different track number, then press the ENTER button.
- To enter the time from which you want to start, use the LEFT/RIGHT button to select, then use the Number buttons to enter the time. Press the ENTER button.

- To make the screen disappear, press the DISPLAY button again.

NOTE

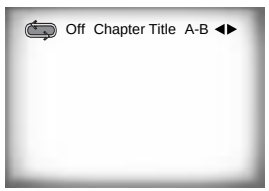
What is a Chapter?
Each Title on a DVD can be divided into chapters (similar to tracks on an audio CD).

What is a Title?
A DVD may contain several different titles. For example, if a disc contains four different movies, each might be considered a title.

Repeat Play

Repeat the current track, chapter, title, a chosen section (A-B), or all of the disc (VCD/CD only).

DVD



VCD/CD

When playing a DVD

1 Press the REPEAT button on the remote. Repeat screen appears.

2 Select Chapter, Title or A-B using the LEFT/RIGHT button.

- A-B Repeat
- Press the REPEAT button. Select A-B on screen with the LEFT/RIGHT button. Or press the A-B button on the remote.
- Press ENTER at the point where you want the repeat play to start (A). The B is automatically highlighted.
- Press ENTER at the point where you want the repeat play to stop (B).
- The A-B Repeat that you set plays until you turn Repeat off.

3 Press ENTER.

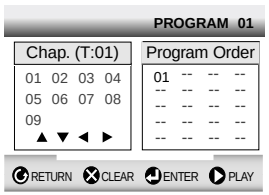
4 To return to normal playback press REPEAT again, then press the LEFT/RIGHT button to select Off and press ENTER.

NOTE

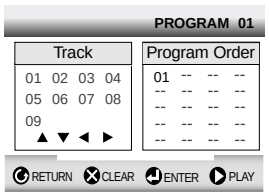
- DVD repeats playback by chapter or title, CD and VCD repeat playback by disc or track.
- Depending on the disc, the Repeat function may not work.
- If the title or track is completed before marking the end (B), the end of title or track becomes B automatically.
- When in VCD 2.0 mode (MENU ON mode), this function does not work.

Program Play & Random Play

DVD



VCD/CD



Program Playback (DVD/VCD/CD)

1 Press the MODE button.

2 Use the LEFT/RIGHT button to select PROGRAM. Press the ENTER button.

3 Use the LEFT/RIGHT button to select the first chapter (or track) to add to the program. Press the ENTER button. The selection numbers appear in the Program Order box.

4 Press the PLAY/PAUSE button. The disc will be played back in programmed order.

NOTE

- Depending on the disc, the Program and Random Playback function may not work.
- When in VCD 2.0 mode (MENU ON mode), these functions do not work.
- To resume normal playback, press the CLEAR button.

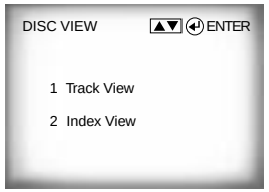
Random Playback (DVD/VCD/CD)

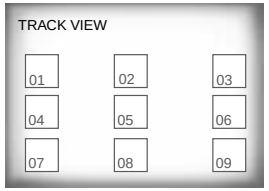
1 Press the MODE button.

2 Use the LEFT/RIGHT button to select RANDOM. Press the ENTER button. The disc will be played back in random order.

Using the Disc View Function

Track View (VCD)



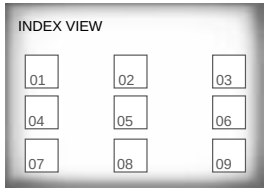


(example)

Displays the beginning view of each track and the track number.

1. During playback, press the TOP MENU button.
2. Press the UP/DOWN button to select TRACK VIEW. Press the ENTER button.
3. Select the desired view by pressing the UP/DOWN or LEFT/RIGHT buttons.
4. Press the ENTER button.

Index View (VCD)



(example)

Displays the equally divided 9 views of the current playing track.

1. During playback, press the TOP MENU button.
2. Press UP/DOWN button to select INDEX VIEW. Press the ENTER button.
3. Select the desired view by pressing UP/DOWN or LEFT/RIGHT buttons.
4. Press the ENTER button.

NOTE

- In stop mode on VCD, press the TOP MENU button and the TRACK VIEW will be displayed.
- When pressing the TOP MENU button with a DVD; the disc's TITLE MENU function comes up. A disc must have at least two titles for the TITLE MENU function to work.
- When pressing the TOP MENU button with a CD; the unit enters the INTRO mode. INTRO lets you listen to the beginning of each track for about 10 seconds.

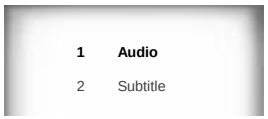
Selecting the Audio Language

You can select a desired language quickly and easily with the AUDIO button.

Using the AUDIO Button

1. Press the AUDIO button.
2. Use the UP/DOWN button to select the desired language on a DVD.
   - The audio and subtitle languages are represented by abbreviations.
3. Use the UP/DOWN button to select STEREO, R CHANNEL or L CHANNEL. (On VCD/CD)

Using the MENU Button



(example)

NOTE

- This function depends on what languages are encoded on the disc and may not work with all DVDs.
- A DVD disc can contain up to 8 audio languages.
- **How to have the same audio language come up whenever you play back a DVD;** Refer to "Setting Up the Language Features" on page 32.

When playing a DVD

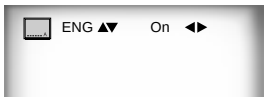
1. Press the MENU button.
2. Use the UP/DOWN button to select AUDIO information.
3. Press the ENTER button.
4. Use the UP/DOWN button to select 'ENGLISH'.
5. Press the ENTER button.

When playing a VCD

In disc version 2.0, the MENU button works as a conversion switch between MENU ON and MENU OFF mode. When playing a VCD 1.1 or CD, the MENU button will not work.

Selecting the Subtitle Language

You can select a desired subtitle quickly and easily with the SUBTITLE button.



Using the SUBTITLE button

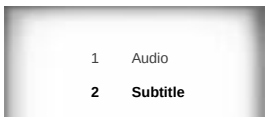
1 Press the SUBTITLE button.

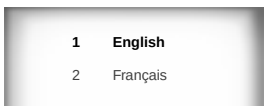
2 Use the UP/DOWN button to select the desired subtitle language.

3 Use the LEFT/RIGHT button to determine whether or not the subtitle will be displayed.

- Initially, the subtitling will not appear on screen.
- The audio and subtitle languages are represented by abbreviations.

Using the MENU button





(example)

1 Press the MENU button.

2 Use the UP/DOWN button to select SUBTITLE information.

3 Press the ENTER button.

4 Use the UP/DOWN button to select the desired language.

5 Press the ENTER button.

When playing a VCD

In disc version 2.0, the MENU button works as a conversion switch between MENU ON and MENU OFF mode.
When playing a VCD 1.1 or CD, the MENU button will not work.

NOTE

- This function depends on what languages are encoded on the disc and may not work with all DVDs.
- A DVD disc can contain up to 32 subtitle languages.
- **How to have the same subtitle language come up whenever you play back a DVD;** Refer to “Setting Up the Language Features” on page 32.

Changing the Camera Angle

When a DVD contains multiple angles of a particular scene, you can select the Angle function.

(example)

Using the ANGLE button

Check to see if an ‘ANGLE ( )’ mark is present at the upper left hand corner of the screen.

1 When an ‘ANGLE’ mark is shown, press the ANGLE button.

2 Use the UP/DOWN button to select the desired screen angle. Then press the ENTER button.

3 To turn off the display, press the ANGLE button again.

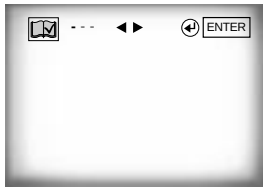
Using the Master Volume Control Function

Press the DISPLAY button twice. Use the UP/DOWN button to select a suitable volume.

- Master Volume Control function lets you adjust the volume of the player’s output. This is useful for matching the player’s output level to other equipment in your system.
- Master Volume Control function on CD titles with DTS will not work under VOLUME : 99 level.
- When the DIGITAL OUTPUT is set to BITSTREAM in the SETUP MENU, the Volume Control function will not work.

Using the Bookmark Function

The Bookmark function lets you select parts of a DVD or VCD (MENU OFF mode) so that you can quickly find the section at a later time.



Using the Bookmark Function (DVD/VCD)

1. During playback or pause, press the BOOKMARK button on the remote. A marker will be displayed.
2. Use the LEFT/RIGHT button to move to the desired bookmark icon.
3. When you reach the scene you want to mark, press the ENTER button. The icon will change to a number (1, 2, or 3).
4. Press the BOOKMARK button to turn off the display.

Recalling a Marked Scene

1. During playback, press the BOOKMARK button on the remote.
2. Use the LEFT/RIGHT button to select a marked scene.
3. Press the PLAY/PAUSE button to skip to the marked scene.

Clearing a Bookmark

1. During playback, press the BOOKMARK button on the remote.
2. Use the LEFT/RIGHT button to select the bookmark number you want to delete.
3. Press the CLEAR button to delete a bookmark number.
   Press the BOOKMARK button to turn off display.

NOTE

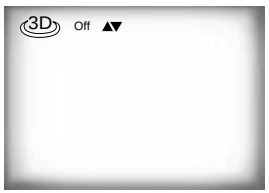
- Up to three scenes may be marked at the same time.
- When in VCD 2.0 mode (MENU ON mode), this function does not work.
- Depending on the disc, the Bookmark function may not work.

Using the Zoom & 3D Sound Functions

Using the Zoom Function (DVD/VCD)

1. During playback or pause mode, press the ZOOM button on the remote. A square will be displayed on screen.
2. Use the UP/DOWN or LEFT/RIGHT button to select the part of the screen you want to zoom.
3. Press the ENTER button.

- During DVD playback, press ENTER to zoom in 2X/4X/normal in order.
- During VCD playback, press ENTER to zoom in 2X/normal in order.



Using the 3D Sound Function

The simulated surround effect (SPATIALIZER N-2-2) depends on the disc contents. If you connect the unit to your stereo system, you can enhance sound quality and produce a greater surround effect.
This feature is useful when you are using the DVD player with a two channel stereo through the analog outputs.
(Discs which are recorded with LPCM or DTS will not work. When the DIGITAL OUTPUT is set to BITSTREAM in the SETUP MENU, the 3D Sound function will not work.)

1. During playback, press the 3D SOUND button. The 3D SOUND mark will be displayed on screen. (Be sure the DIGITAL OUTPUT is set to PCM.)
2. Press the UP/DOWN button to turn the 3D Sound feature on or off.
3. When the Karaoke function is on, the 3D sound can't be operated.

NOTE

- 3D Sound is possible only on discs recorded using DOLBY SURROUND or DOLBY DIGITAL. However, some of these discs do not contain rear channel sound signals.
- Depending on the disc, the Zoom and 3D Sound function may not work.

Beginning Karaoke Functions

Operation Sequence

1 Connect the Mixed Audio Out terminals with the TV or AMP.

2 Press the power button.

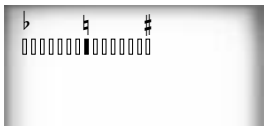
3 Connect Mic into Mic 1 or Mic 2 jack. Then the karaoke mode is transferred to ON mode.

- To disconnect the Mic makes the karaoke mode transfer to OFF mode automatically.

Key Control

1 Pressing the KARAOKE button makes the karaoke ON mode.

2 Select the "KEYCON" using the LEFT/RIGHT buttons.



3 By use of the LEFT/RIGHT buttons, change to the desired tone.

♭ : To let 7 scales down by half scale.
♮ : Original scale.
♯ : To let 7 scales up by half scale.

NOTE

• Key control function is not applied to the Mic output.

Types of Karaoke disc

• DVD Karaoke Disc

Channel	Karaoke -Channel	5CH. DVD	2CH. DVD
1 CH	L	Left stereo music	Left stereo music + Vocal
2 CH	R	Right stereo music	Right stereo music + Vocal
3 CH	M	Guide melody	-
4 CH	V1	Vocal track	-
5 CH	V2	Vocal track	-

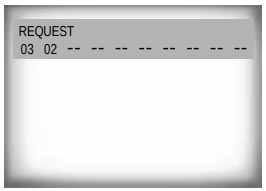
• CVD, VCD Karaoke Disc

Channel	Karaoke -Channel	CVD	VCD, CD
1 CH	CH1 LEFT	Left stereo music + Vocal	Left stereo music
1 CH	CH1 RIGHT	Right stereo music + Vocal	Right stereo music + Vocal
2 CH	CH2 LEFT	Left stereo music	-
2 CH	CH2 RIGHT	Right stereo music	-

Reserving a Song

It is the function to reserve the desired song in advance by use of Karaoke function

Sequence of reservation



1 Playback the Karaoke Disc containing the wanted songs.

2 After pushing the KARAOKE button of the remote transfer to the Karaoke ON mode using the UP/DOWN buttons.

3 Select the "REQUEST" using the LEFT/RIGHT buttons.

4 Input the number (Track No.) of the desired song into the flickering part(--).

- You can reserve up to 10 songs.

5 When you want the next reserved song during playing a song, press the SKIP button.

Cancellation of reservation

1 Cancel by pressing the CLEAR button of the remote.

- The last reserved song will be erased first.

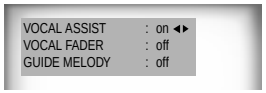
2 Continuous pressing of the CLEAR button can cancel the next reserved song.

3 If the reservation is required again, input the song number in the flickering part.

NOTE

• Request function is available only when the Karaoke mode is "ON".
• When using "SKIP" button, it can not work at the last song.
• When using Request function, the "DISPLAY" and “REPEAT” function does not work.

Vocal Function



Sequence of reservation

1 Pressing the KARAOKE button twice displays the following in Karaoke ON mode:

Vocal Assist

– To put the vocal assist on when playing a Karaoke disc can change the vocal recorded on the disc (singer's voice) with your own voice.
– The Vocal changed is one of the selected channel on "VOCAL FADER".

	VOCAL ASSIST	VOCAL FADER	Remark
↓	ON	V1	CH1. Vocal Change
↓	ON	V2	CH2. Vocval Change
↓	ON	1 + 2	CH1, CH2 CH. Vocal Change
↓	OFF	OFF	Vocal Assist Off

CAUTIONS

- This function is limited only to Karaoke disc and does not work to the normal music disc.
- When putting the VOCAL FADER off, the VOCAL ASSIST is off automatically, too.

Vocal Fader

– The function to make the music only sound by cancelling vocal when playing a Karaoke disc.

	VOCAL FADER	Remark
↓	V1	CH1. Vocal Cancel
↓	V2	CH2. Vocal Cancel
↓	1 + 2	CH1, CH2. Vocal Cancel
↓	OFF	Vocal Fader Off

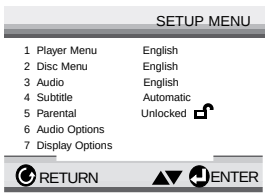
– In VCD, CVD or CD, you can select only the ON or OFF.

Guide Melody

– To guide melody through xylophone and piano help you sing easily.
– This function works only on the DVD Karaoke disc on which the guide melody is recorded.

Using the Setup Menu

The Setup menu lets you customize your DVD player by allowing you to select various language preferences, set up a parental level, even adjust the player to the type of television screen you have.



1 With no disc playing, press the SETUP button on the remote.

❶ **PLAYER MENU :** Setup of the Display Language (See page 32)
Use the Player preference menu to select the language for the player's on-screen displays.

❷ **DISC MENU :** Setup of the Menu Language (See page 32)
Use the Menu preference menu to select the language you want a DVD's disc menu to be displayed in.

❸ **AUDIO :** Setup of the Audio Language (See page 33)
Use the Audio preference menu to select the soundtrack language.

❹ **SUBTITLE :** Setup of the Subtitle Language (See page 33)
Use the Subtitle preference menu to select the language the disc's subtitles are to be displayed in.

❺ **PARENTAL :** Setup of the Parental Level (See page 34)
Allows users to set the level necessary to prevent children from viewing unsuitable movies such as those with violence, adult subject matter, etc.

❻ **AUDIO OPTIONS :** Setup of the Audio Options (See page 35)

❼ **DISPLAY OPTIONS :** Setup of the Display Options (See page 37)
Use to select which type of screen you want to watch and several display options.

2 Use the UP/DOWN button on the remote to access the different features.

3 Press the ENTER button to access the sub features.

To make the setup screen disappear after setting up, press the SETUP button again.

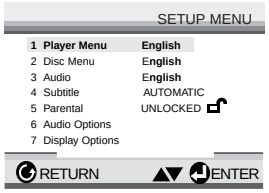
NOTE

Depending on the disc, some Setup Menu selections may not work.

Setting Up the Language Features

If you set the player menu, disc menu, audio and subtitle language in advance, it will come up automatically every time you watch a movie.

e.g Setting up in ENGLISH.



Using the Player Menu

1 With no disc playing or stop, press the SETUP button.

2 Use the UP/DOWN button to select the PLAYER MENU.

3 Press the ENTER button.

4 Use the UP/DOWN button to select 'ENGLISH'.

5 Press the ENTER button.

- ENGLISH is selected and the screen returns to SETUP MENU.
- To make the SETUP MENU disappear, press the RETURN button.

e.g Setting up in ENGLISH.

Using the Disc Menu Language

This function changes the language only for the text on the disc menu screens.

1 With no disc playing or stop, press the SETUP button.

2 Use the UP/DOWN button to select DISC MENU.

3 Press the ENTER button.

4 Use the UP/DOWN button to select 'ENGLISH'.

- Select "OTHERS" if the language you want is not listed.

5 Press the ENTER button.

- ENGLISH is selected and the screen returns to SETUP MENU.

Using the Audio Language

1 With no disc playing or stop, press the SETUP button.

2 Press the UP/DOWN button to move to AUDIO.

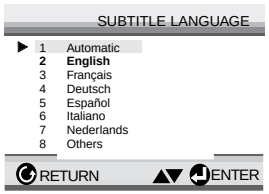
3 Press the ENTER button.

4 Press the UP/DOWN button to select 'ENGLISH' .

- Select "ORIGINAL" if you want the default soundtrack language to be the original language the disc is recorded in.
- Select "OTHERS" if the language you want is not listed.

5 Press the ENTER button.

- ENGLISH is selected and the screen returns to SETUP MENU.



Using the Subtitle Language

1 With no disc playing or stop, press the SETUP button.

2 Use the UP/DOWN button to select SUB-TITLE.

3 Press the ENTER button.

4 Use the UP/DOWN button to select 'ENGLISH'.

- Select "AUTOMATIC" if you want the subtitle language to be the same as the language selected as the audio preference.
- Select "OTHERS" if the language you want is not listed. Some discs may not contain the language you select as your initial language; in that case the disc will use its original language setting.

5 Press the ENTER button.

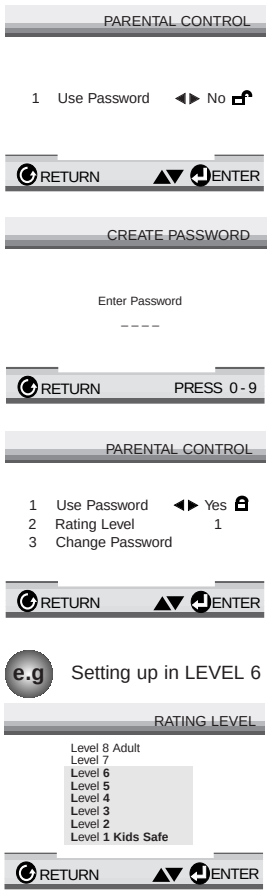
- ENGLISH is selected and the screen returns to SETUP MENU.

NOTE

- If the selected language is not recorded on the disc, the original pre-recorded language is selected.
- **How to make the SETUP MENU disappear or return to menu screen during set up;**
  Press RETURN button.

Setting Up the Parental Control

The Parental Control function works in conjunction with DVDs that have been assigned a rating - which helps you control the types of DVDs that your family watches. There are up to 8 rating levels on a disc.



1 With no disc playing or stop, press SETUP. The Setup Menu screen appears.

2 Use UP/DOWN to select Parental. Press ENTER. The Parental Control screen appears.

3 Use LEFT/RIGHT to select Yes if you want to use a password. Press ENTER. The Enter Password screen appears.

4 Enter your password. The Re-enter Password screen appears to confirm the password. Enter your password again. The Parental Control screen appears.

5 **About the Rating Level** ;

The Rating Level will work only when Use Password is set to Yes. To unlock the player, use LEFT/RIGHT to select No. Use UP/DOWN to select Rating level. Press ENTER.

- Use UP/DOWN to select the level(e.g. Level 6) and press ENTER. The disc that contains Level 7 will now not play.
- To cancel the rating level, use LEFT/RIGHT to select No in Use Password.

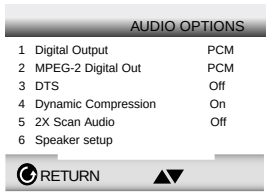
6 **About the Change Password** ;

- Use UP/DOWN to select Change Password. The Change Password screen appears.
- Enter your new password. Re-enter the new password again.

NOTE

- **How to make the SETUP MENU disappear or return to menu screen during set up;** Press RETURN button.
- If you have forgotten your password, see Forget Password in the Troubleshooting Guide.

Setting Up the Audio Options



1 With no disc playing or stop, press the SETUP button.

2 Use the UP/DOWN button to select AUDIO OPTIONS. Then press the ENTER button.

3 Use the UP/DOWN button to select the desired item. Then press the LEFT/RIGHT button.

❶ DOLBY DIGITAL OUT / ❷ MPEG-2 DIGITAL OUT
- 1 PCM : Converts to PCM(2CH) 48kHz/16Bit audio. Select PCM when using the Analog Audio Outputs.
- 2 BITSTREAM : Converts to Dolby Digital BITSTREAM - 5.1CH (in case of MPEG-2, 7.1CH). Select BITSTREAM when using the Digital Audio Output.

  NOTE : Be sure to select the correct Digital Output or no audio will be heard.

❸ DTS
- 1 ON : Outputs DTS BITSTREAM via digital output only. Select DTS when connecting to a DTS DECODER.
- 2 OFF : Doesn't output digital signal.

❹ DYNAMIC COMPRESSION
- 1 ON : To select dynamic compression.
- 2 OFF : To select the standard range.

❺ 2X SCAN AUDIO
- 1 ON : Turns 2X audio on.
- 2 OFF : Turns 2X audio off.

Though 2X SCAN AUDIO is ON in the SETUP MENU, no sound will be heard on discs which are recorded with LPCM, DTS or MPEG-2.

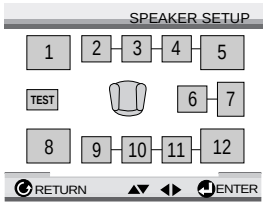
❻ SPEAKER SETUP

NOTE

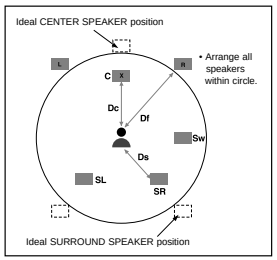
- **How to make the SETUP MENU disappear or return to menu screen during set up;** Press RETURN button.

- Certain audio features of this product manufactured under a license from Desper Products, Inc. Spatializer® and circle-in-square device are trademarks owned by Desper Products, Inc.
- Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories. Confidential unpublished works. ©1992-1997 Dolby Laboratories Inc. All rights reserved.
- "DTS" and "DTS Digital Out" are trademarks of Digital Theater Systems, Inc.

Surround Sound Speaker Setup



1. Speaker Mode(Front L)
2. Channel Balance(Center)OdB
3. Speaker Mode(Center)
4. Delay Time(Center)Oms
5. Speaker Mode(Front R)
6. Channel Balance(Subwoofer)OdB
7. Speaker Mode(Subwoofer)
8. Speaker Mode(Surround L)
9. Channel Balance(Surround L)OdB
10. Delay Time(Surround L/R)Oms
11. Channel Balance(Surround R)OdB
12. Speaker Mode(Surround R)



NOTE

- **How to make the SETUP MENU disappear or return to menu screen during set up.**
  Press RETURN button.
- The subwoofer test output signal is lower than the other speakers.
- The MPEG Multichannel logo is a trademark registered by PHILIPS Corporation.

1 Press the SETUP button in play or stop mode.

2 Press the UP/DOWN button to select AUDIO OPTIONS. Then press the ENTER button.

3 Use the UP/DOWN button to select SPEAKER SETUP. Then press the ENTER button.

4 Use the UP/DOWN or LEFT/RIGHT button to select the desired item. Then press the ENTER button.

Setting up SPEAKER MODE

- If you have connected the system to a speaker with low frequencies of 100Hz or below, select 'Found(Large illustration)'.
- If you have connected the system to a speaker without low frequencies of 100Hz or below, select 'Found(Small illustration)'. If you don't connect a subwoofer, always select 'Found(Large illustration)' for the Front Speakers(L/R).
- When you don't have a particular speaker connected, select 'Not found(No illustration visible)'.

Setting up DELAY TIME

- When 5.1CH Surround Sound is played, you can enjoy the best sound if the distance between you and each speaker is the same. You can set Delay Time in the Center/Surround Speaker to customize the sound to the acoustic of your room.
- Setting CENTER SPEAKER
  If the distance of Dc is equal to or longer than the distance of Df in the left figure, set the mode as Oms. Otherwise, change the setting according to the table below.

(A) = Df - Dc

Distance of (A)(in)	Setting(ms)
1.64	1.3
3.28	2.6
4.92	3.9
6.56	5.3

- Setting SURROUND SPEAKERS
  If the distance of Df is equal to the distance of Ds in the above, set the mode as Oms. Otherwise, change the setting according to the table on the right.

(B) = Df - Ds

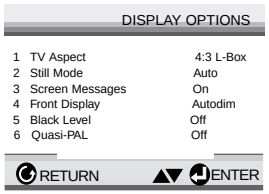
Distance of (B)(in)	Setting(ms)
6.56	5.3
13.12	10.6
19.68	15.9

Setting up TEST

The test output signals come clockwise starting from the Front Speaker(L). Adjust Channel Balance to match to the volume of test signals memorized in the system.

FRONT(L) ⟶ CENTER ⟶ FRONT(R) ⟶ SUBWOOFER
SURROUND(R) ⟶ SURROUND(L)

Setting Up the Display Options



1 With no disc playing or stop, press the SETUP button.

2 Use the UP/DOWN button to select DISPLAY OPTIONS. Then press the ENTER button.

3 Use the UP/DOWN button to select the desired item. Then press the LEFT/RIGHT button.

❶ TV ASPECT

1 4:3 LETTER BOX : Select when you want to see the total 16:9 ratio screen DVD supplies, even though you have a TV with a 4:3 ratio screen. Black bars will appear at the top and bottom of the screen.
2 4:3 PAN-SCAN : Select this for conventional size TVs when you want to see the central portion of the 16:9 screen. (Extreme left and right side of movie picture will be cut off.)
3 16:9 WIDE : You can view the full 16:9 picture on your widescreen TV.

❷ STILL MODE

1 FIELD : Select this feature when the screen shakes in the AUTO mode.
2 FRAME : Select this feature when you want to see small letters more clearly in the AUTO mode.
3 AUTO : When selecting AUTO, FIELD/FRAME mode will be automatically converted.

❸ SCREEN MESSAGES

Use to turn on-screen messages on or off.

❹ FRONT DISPLAY

Adjust the brightness of the unit's front panel display.
1 BRIGHT : Makes the Front Panel Display bright.
2 DIM : Makes the Front Panel Display dim.
3 AUTO DIM : Makes the Front Panel Display dim automatically when playing a DVD.

❺ BLACK LEVEL

Adjusts the brightness of the screen.

❻ QUASI-PAL

Depending on a disc, you can play a NTSC DVD disc by QUASI-PAL mode.

NOTE

- **How to make the SETUP MENU disappear or return to menu screen during set up;**
  Press RETURN button.

Controlling a TV with the Remote

The remote can also be set up to control most TVs. To program the remote, use the code that corresponds to your brand.

TV Codes	
CODE	BRAND
0	SAMSUNG D
1	SAMSUNG F, LG A, LOEWE, PHILPS, FINLUX A, YOKO, LOEWE OPTA A, MITSUBISHI A, PHONOLA A, RADIOLA A,SCHNEIDER
2	SAMSUNG A
3	SAMSUNG B
4	SAMSUNG C
5	SAMSUNG E
6	TOSHIBA A
7	PANASONIC A
8	GRUNDIG A, BLAUPUNKT, SIEMENS
9	SHARP A
SETUP	HITACHI A
DISPLAY	SANYO A, AKAI, FISHER
OPEN/CLOSE	HITACH B, SABA A, THOMSON A, NORDMENDE A
AUDIO	THOMSON B, SABA B, TELEFUNKEN A, NORDMENDE B BRANDT, FERGUSON, PIONEER A, TELEAVIA, HITACH C
SUB TITLE	SONY A
DVD POWER	TOSHIBA B, SANYO B, SHARP B, SONY B, MITSUBISHI B
ANGLE	TOSHIBA C, GRUNDIG B, FINLUX B
TOP MENU	TOSHIBA D
MENU	TOSHIBA E
RETURN	PHILIPS A, PHONOLA B, RADIOLA B
REV SEARCH	TOSHIBA F, GRUNDIG C, CGE, IMPERIAL, MIVAR
REPEAT	SABA C, BANG&OLUFSEN, LOEWE OPTA B, BRIONVEGA FINLUX C, FORMENTI, PHILIPS B, SINGER, SINUDYNE METZ, WEGA, PHONOLA C, RADIOMARELLI
FWD SEARCH	NOKIA, PANASONIC B, SABA D, PIONEER B REX, SELECO, SALORA
BACK SKIP	HITACHI D, NORDMENDE C, PANASONIC C,THOMSON C SABA E, TELEFUNKEN B, CONTINENTAL EDISON
PLAY/PAUSE	PANASONIC D
NEXT SKIP	PANASONIC E
STOP	PANASONIC F
STEP	TELEFUNKEN C
CLEAR	MIVAL
MODE	LG B
BOOKMARK	JVC

1 Turn on the TV

2 Point the DVD's remote at the TV.

3 While holding the TV POWER button down, enter the code for your brand.

e.g For Samsung D TVs

While holding down the TV button, enter 0.

4 If the TV turns off, setup is complete.

Enter other codes of the same brand if the first code does not work.

5 To operate the TV, use the "TV Function Buttons" described on page 13.

NOTE

The remote may not be able to control every model TV of the brands listed.

Troubleshooting Guide

Before requesting service (troubleshooting)

Problem	Action	Page
No operations can be performed with remote.	• Check the batteries in the remote. May need replacing. • Operate the remote control at a distance of no more than 20 feet. • Remove batteries and hold down one or more buttons for several minutes to drain the microprocessor inside the remote to reset it. Reinstall batteries and try remote again.	P4
Disc does not play.	• Ensure that the disc is installed with the label side facing up. • Check the region number of the DVD. • This player cannot play CD-ROMs, DVD-ROMs, CD-R, etc. Insert a DVD, a VIDEO-CD or a CD.	P8
5.1 channel sound is not being reproduced.	• 5.1 channel sound is reproduced only when the following conditions are met. : 1)The DVD player is connected with the proper amplifier 2)The disc is recorded with 5.1 channel sound. • Check whether the disc being played has the "Dolby 5.1 ch" mark on the outside. • Check if your audio system is connected and working properly.	P14-15
The ⊘ icon appears on screen.	• The features or action cannot be completed at this time because: 1. The DVD's software restricts it. 2. The DVD's software doesn't support the feature (e.g., angles). 3. The feature is not available at the moment. 4. You've requested a title or chapter number or search time that is out of range.	P18-21 P24-28
Disc Menu doesn't appear.	• Check if the disc has a Menu.	P23-24
Playback mode differs from the Setup Menu selection.	• Some of the functions selected in the Setup Menu may not work properly if the disc is not encoded with the corresponding function.	P31-37
The screen ratio cannot be changed.	• The Screen Ratio is fixed on your DVDs.	P37
No audio.	• Make sure you have selected the correct Digital Output in the Audio Options Menu.	P35
Forgot password	• Press power on from a cold start with no disc in the unit. Press the STOP and PLAY buttons simultaneously on the front panel for three seconds. The Select Menu Language display will appear. Select the desired language button. Press the SETUP button on the remote control to select the Parental Mode. The Parental Mode is now unlocked as indicated on the display. Press the DOWN button to select Parental. Press ENTER and the Create Password display will appear. You can now set your rating level and change your password to a new number.	P34
If you experience other problems.	• Go to the contents and find the section of the instruction book that contains the explanations regarding the current problem, and follow the procedure once again. • If the problem still cannot be solved, please contact your nearest authorized service center.	

Specifications

General	Power Requirements	AC 110~240 V, 50/60 Hz
	Power Consumption	18 W
	Weight	6.8 lbs
	Dimensions	W 16.9 in x D 11.0 in x H 3.5 in
	Operating Temperature Range	+41°F to +95°F
	Operating Humidity Range	10 % to 75 %
Disc	DVD (DIGITAL VERSATILE DISC)	Reading Speed : 11.45 ft/sec. Approx. Play Time (Single Sided, Single Layer Disc) : 135 min.
	CD : 5" (COMPACT DISC)	Reading Speed : 3.9 to 4.6 ft/sec. Maximum Play Time : 74 min.
	CD : 3 1/2" (COMPACT DISC)	Reading Speed : 3.9 to 4.6 ft/sec. Maximum Play Time : 20 min.
	VCD : 5"	Reading Speed : 3.9 to 4.6 ft/sec. Maximum Play Time : 74 min. (Video + Audio)
Video Output	Composite Video	2 channel : 1.0 Vp-p (75 Ω load)
	Component Video	Y : 1.0 Vp-p (75 Ω load) Pr : 0.70 Vp-p (75 Ω load) Pb : 0.70 Vp-p (75 Ω load)
	S-VIDEO	Luminance Signal : 1.0 Vp-p (75 Ω load) Chrominance Signal : 0.286 Vp-p (75 Ω load)
Audio Output	2 Channel	L(1/L), R(2/R)
	*Frequency Response	48 kHz Sampling : 4 Hz to 22 kHz 96 kHz Sampling : 4 Hz to 44 kHz
	*S/N Ratio	110 dB
	*Dynamic Range	100 dB
	*Total Harmonic Distortion	0.005 %

*: Nominal specification

- Samsung Electronics Co., Ltd reserves the right to change the specifications without notice.
- Weight and dimensions are approximate.